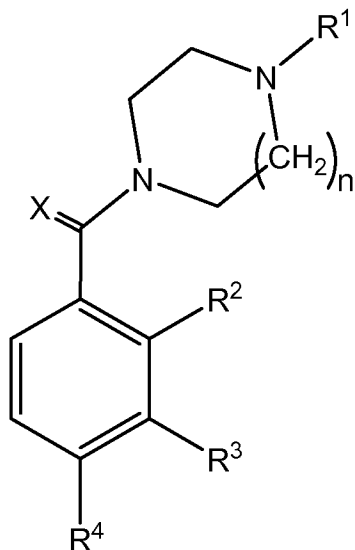


In the Claims:

This listing of claims will replace all prior versions and listing of claims in this application.

1. (currently amended) A compound of formula (I):



(I)

wherein

R¹ is ~~C₁₋₁₀~~ branched C₃₋₅ alkyl, C₃₋₈ alkenyl, C₃₋₈ cycloalkyl, (C₃₋₈ cycloalkyl)C₁₋₆ alkyl, (C₃₋₈ cycloalkyl)C₃₋₈ alkenyl, or (C₁₋₈ alkylcarbonyl)C₁₋₈ alkyl;

n is 1;

X is O;

R² and R³ independently are hydrogen, fluoro, chloro, bromo, nitro, trifluoromethyl, methyl, or C₁₋₃alkoxy;

R⁴ is G

G is LQ;

L is -CH₂-;

Q is a saturated, un-substituted N-linked heterocyclyl, selected from the group consisting of azepanyl, morpholinyl, piperidinyl and pyrrolidinyl;

~~provided however that when R¹ is methyl, G is not piperidin-1-ylmethyl; and~~

wherein each of the above alkyl, alkenyl, and cycloalkyl, groups may each be independently and optionally substituted with between 1 and 3

substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxy, and C₁₋₃ alkyl;
~~provided that when R¹ is methyl, R² and R³ are both H and X is O, then R⁴ is not~~
~~4-morpholin-4-ylmethyl;~~
or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

2-3: Cancelled.

4. (original) A compound of claim 1, wherein wherein R¹ is isopropyl.

5-40: Cancelled

41. (original) A compound of claim 1 selected from the group consisting of:
(4-Azepan-1-ylmethyl-phenyl)-(4-*sec*-butyl-piperazin-1-yl)-methanone;
(4-Isopropyl-piperazin-1-yl)-(4-piperidin-1-ylmethyl-phenyl)-methanone;
(4-*sec*-Butyl-piperazin-1-yl)-(4-piperidin-1-ylmethyl-phenyl)-methanone;
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-piperidin-1-ylmethyl-phenyl)-methanone;
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-pyrrolidin-1-ylmethyl-phenyl)-methanone;
(4-Isopropyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone;
(4-*sec*-Butyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride; and
{4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.
42. (original) A pharmaceutical composition, comprising a compound of claim 1 and a pharmaceutically-acceptable excipient.
43. (original) A compound of claim 1 isotopically-labelled to be detectable by PET or SPECT.

Claims 44-46: Cancelled

47. (withdrawn) A method for treating a disease or condition modulated by at least one receptor selected from the histamine H₁ receptor and the histamine H₃ receptor, said method comprising (a) administering to a subject a jointly effective amount of a histamine H₁ receptor antagonist compound, and (b) administering to the subject a jointly effective amount of a compound of claim 1, said method providing a jointly therapeutically effective amount of said compounds.
48. (withdrawn) The method of claim 47 wherein the histamine H₁ receptor antagonist and the compound of claim 1 are present in the same dosage form.
49. (withdrawn) A method for treating diseases or conditions modulated by at least one receptor selected from the histamine H₂ receptor and the histamine H₃ receptor in a subject, comprising (a) administering to the subject a jointly effective amount of a histamine H₂ receptor antagonist compound, and (b) administering to the subject a jointly effective amount of a compound of claim 1, said method providing a jointly therapeutically effective amount of said compounds.
50. (withdrawn) The method of claim 39 wherein the histamine H₂ receptor antagonist and the compound of claim 1 are present in the same dosage form.
51. (original) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 1.
52. (original) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 1.

53. (original) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 1.

54-58: Cancelled

59. (previously presented) A compound of claim 1, wherein R^1 is C_{3-8} cycloalkyl.

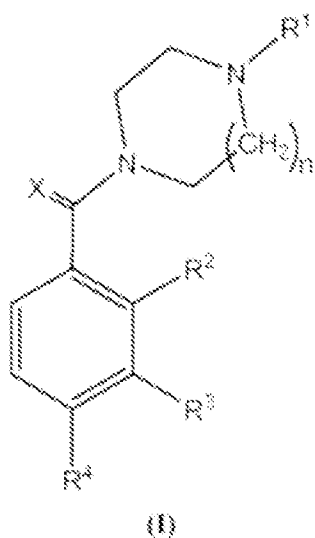
60. Cancelled.

61. (previously presented) A compound that is: (4-sec-Butyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.

62. (previously presented) A compound that is: {4-(1-Ethyl-propyl)-piperazin-1-yl}-(4-morpholin-4-ylmethyl-phenyl)-methanone dihydrochloride.

63. (previously presented) A compound that is: {4-(1-Ethyl-propyl)-piperazin-1-yl}-{4-(decahydro-isoquinolin-2-ylmethyl)-phenyl}-methanone.

64. (new) A compound of formula (I):



wherein

R¹ is C₃₋₈ cycloalkyl;

n is 1;

X is O;

R² and R³ independently are hydrogen, fluoro, chloro, bromo, nitro,
trifluoromethyl, methyl, or C₁₋₃alkoxy;

R⁴ is G

G is LQ;

L is -CH₂-;

Q is azepanyl, morpholinyl, piperidinyl or pyrrolidinyl; and

wherein each of the above cycloalkyl groups may each be independently and optionally substituted with between 1 and 3 substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxyl, and C₁₋₃ alkyl;

or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

65. (new) A compound of claim 64, wherein Q is morpholinyl.

66. (new) A pharmaceutical composition, comprising a compound of claim 64 and a pharmaceutically-acceptable excipient.

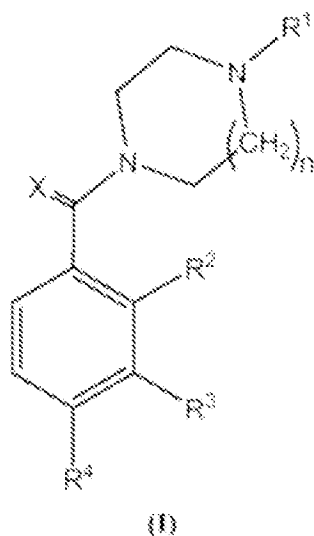
67. (new) A compound of claim 64 isotopically-labelled to be detectable by PET or SPECT.

68. (new) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 64.

69. (new) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 64.

70. (new) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 64.

71. (new) A compound of formula (I):



wherein

R^1 is branched C_{3-5} alkyl;

n is 1;

X is O;

R^2 and R^3 independently are hydrogen, fluoro, chloro, bromo, nitro, trifluoromethyl, methyl, or C_{1-3} alkoxy;

R^4 is G

G is LQ;

L is $-CH_2-$;

Q is azepanyl, morpholinyl, piperidinyl or pyrrolidinyl; and

wherein each of the above alkyl groups may each be independently and optionally substituted with between 1 and 3 substituents independently selected from trifluoromethyl, methoxy, halo, amino, nitro, hydroxyl, and C_{1-3} alkyl;

or a pharmaceutically acceptable salt, ester, tautomer or amide thereof.

72. (new) A compound of claim 71, wherein R¹ is isopropyl.
73. (new) A compound of claim 71, wherein Q is morpholinyl.
74. (new) A compound of claim 71, wherein R¹ is isopropyl, R² is hydrogen, R³ is hydrogen and Q is morpholinyl.
75. (new) A compound that is: (4-Isopropyl-piperazin-1-yl)-(4-morpholin-4-ylmethyl-phenyl)-methanone.
76. (new) A pharmaceutical composition, comprising a compound of claim 71 and a pharmaceutically-acceptable excipient.
77. (new) A compound of claim 71 isotopically-labelled to be detectable by PET or SPECT.
78. (new) A method for treating one or more disorders or conditions selected from the group consisting of sleep/wake disorders, narcolepsy, and arousal/vigilance disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 71.
79. (new) A method for treating attention deficit hyperactivity disorders (ADHD), comprising administering to a subject a therapeutically effective amount of a compound of claim 71.
80. (new) A method for treating one or more disorders or conditions selected from the group consisting of dementia, mild cognitive impairment (pre-dementia), cognitive dysfunction, schizophrenia, depression, manic disorders, bipolar disorders, and learning and memory disorders, comprising administering to a subject a therapeutically effective amount of a compound of claim 71.